



NEWS FROM NOAA

NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION • US DEPARTMENT OF COMMERCE

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NOAA NATIONAL WEATHER SERVICE'S IMPROVED TORNADO RATING SYSTEM NOW OPERATIONAL

NOAA's National Weather Service today fully implemented the Enhanced Fujita (EF) scale to rate tornadoes, replacing the original Fujita Scale. The EF scale will continue to rate tornadoes on a scale from zero to five, but ranges in wind speed will be more accurate with the improved rating scale.

"The EF scale provides more detailed guidelines that will allow the National Weather Service to more accurately rate tornadoes that strike the United States," said Brig. Gen. David L. Johnson, U.S. Air Force (Ret.), director of NOAA's National Weather Service. "The EF scale still estimates wind speeds but more precisely takes into account the materials affected and the construction of the structures damaged by the tornado."

The Fujita scale was developed in 1971 by T. Theodore Fujita, Ph.D., to rate tornadoes and estimate associated wind speed based on the damage they cause. The EF scale refines and improves the original scale. It was developed by the Texas Tech University Wind Science and Engineering Research Center, along with a forum of wind engineers, universities, private companies, government organizations, private sector meteorologists, and NOAA meteorologists from across the country.

Limitations of the original Fujita scale may have led to inconsistent ratings, including possible overestimates of associated wind speeds. The EF scale incorporates more damage indicators and degrees of damage than the original Fujita scale, allowing more detailed analysis and better correlation between damage and wind speed. The original Fujita scale historical data base will not change. An F5 tornado rated years ago is still an F5, but the wind speed associated with the tornado may have been somewhat less than previously estimated. A correlation between the original Fujita scale and the EF scale has been developed. This makes it possible to express ratings in terms of one scale to the other, preserving the historical database.

The National Oceanic and Atmospheric Administration, an agency of the U.S. Commerce Department, is celebrating 200 years of science and service to the nation. From the establishment of the Survey of the Coast in 1807 by Thomas Jefferson to the formation of the Weather Bureau and the Commission of Fish and Fisheries in the 1870s, much of America's scientific heritage is rooted in NOAA.

NOAA is dedicated to enhancing economic security and national safety through the prediction and research of weather and climate-related events and information service delivery for transportation, and by providing environmental stewardship of our nation's coastal and marine resources. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners, more than 60 countries and the European Commission to develop a global monitoring network that is as integrated as the planet it observes, predicts and protects.

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On the web:

NOAA: <http://www.noaa.gov>

NOAA's National Weather Service: <http://www.weather.gov>

Enhanced Fujita Scale: <http://www.spc.noaa.gov/efscale>